UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
WATER AND
WATERSHEDS

SEP 13 2012

Reply to Attn of: OWW-130

Daniel Redline, Regional Administrator
Idaho Department of Environmental Quality
2110 Ironwood Parkway
Coeur d'Alene, ID 83814

Re: Request for Clarification of Mixing Zones in Draft Clean Water Act Section 401 Certifications of NPDES Draft Permits for the City of Coeur d'Alene, City of Post Falls and the Hayden Area Regional Sewer Board
NPDES Permit Numbers ID0022853, ID0025852, and ID0026590

Dear Mr. Redline:

On August 30, 2012, the EPA received by mail the draft Clean Water Act (CWA) Section 401 certifications for the City of Coeur d'Alene and the Hayden Area Regional Sewer Board (HARSB). On September 6, 2012, the EPA received by e-mail the draft CWA Section 401 certification for the City of Post Falls. The EPA appreciates the Idaho Department of Environmental Quality's (IDEQ's) efforts in preparing these draft certifications and addressing all of the complicated issues necessary to do so.

We have noticed that the mixing zone authorizations in the draft certifications differ from those that the EPA assumed would be authorized during the development of the preliminary draft permits. The specific differences are as follows:

- The preliminary draft permits for the City of Coeur d'Alene and HARSB were drafted under the assumption that IDEQ would authorize mixing zones encompassing 25% of the 1-day, 10-year low flow (1Q10) of the Spokane River (see the draft fact sheets for Coeur d'Alene and HARSB at Appendix F). However, the draft certifications for Coeur d'Alene and HARSB do not authorize mixing zones for pH. The absence of a mixing zone for pH for Coeur d'Alene and HARSB would require the EPA to establish "criteria end-of-pipe" effluent limits for pH, for these facilities (a range of 6.5 – 9.0 standard units at all times).
- The average monthly and average weekly ammonia limits in Coeur d'Alene's preliminary draft permit, which are based on the State of Idaho's numeric ammonia water quality criteria, used a mixing zone encompassing 2.5% of the 1Q10 river flow for acute ammonia criteria, and the typical 25% of the 30Q10 river flow for the chronic criteria (see the Coeur d'Alene fact sheet at Appendix E). However, the Coeur d'Alene draft certification authorized a 25% mixing zone for *both acute and chronic* criteria, for ammonia.

  Average monthly and average weekly ammonia limits based upon Idaho's numeric ammonia criteria and using a 25% mixing zone for both acute and chronic criteria would likely be many times larger than the City's 272 lb/day seasonal average ammonia limit, which is necessary to ensure compliance with the State of Washington's water quality

criteria for dissolved oxygen (DO). Therefore, it may not be practical to establish such limits in conjunction with the 272 lb/day seasonal average limit, in which case the EPA would need to establish average monthly and average weekly limits for ammonia similar to the HARSB and Post Falls draft permits, which are based not upon Idaho's numeric water quality criteria but upon the seasonal average ammonia loading necessary to ensure compliance with Washington's water quality criteria for DO. In any event, with the mixing zones currently authorized in the draft certification, the EPA would need to change the ammonia limits in the Coeur d'Alene permit to ensure that they were consistent with Idaho's water quality criteria and the authorized mixing zone, as well as Washington's water quality criteria for DO.

- The draft certifications for Coeur d'Alene and Post Falls state that the authorized mixing zone is 25% of the 1Q10 low flow rate of the Spokane River. The 1Q10 is the appropriate stream flow for use with acute aquatic life criteria. However, other critical low flows should be used with other types of water quality criteria. Consistent with the Idaho Water Quality Standards (IDAPA 58.01.02.210.03) and EPA guidance (the *Technical Support Document for Water Quality-based Toxics Control*, see Section 4.6.2 and Appendix D), the critical low flows used to calculate dilution factors in the preliminary draft permits were as follows[1] (see the fact sheets at Table D-1):
    - Acute aquatic life criteria: 1Q10
    - Chronic aquatic life criteria (except ammonia): 7Q10
    - Chronic aquatic life criteria for ammonia: 30B3 or 30Q10
    - Human health criteria for non-carcinogens: 30Q5
    - Human health criteria for carcinogens: Harmonic mean

  The exclusive use of the 1Q10 river flow rate to calculate dilution for all types of water quality criteria may change some of the effluent limits and/or the outcomes of some of the reasonable potential analyses.

Because the mixing zone authorizations in the draft certifications would result in changes to the permit requirements, the EPA is requesting clarification on the mixing zone authorizations. If IDEQ intended to authorize mixing zones consistent with those in the preliminary draft permits and draft fact sheets, the EPA requests that IDEQ issue revised draft certifications, with appropriately revised mixing zone language.

However, if IDEQ intended to authorize mixing zones in the draft certifications that are different from those proposed in the preliminary draft permits and draft fact sheets, then the EPA requests that IDEQ confirm that the mixing zones authorized in the draft certifications are correct.

[1] If the critical low flow rate calculated from historical data was less than the 500 CFS minimum flow rate specified in the Federal Energy Regulatory Commission (FERC) license for the Post Falls Dam, then 500 CFS was used in place of the calculated critical low flow rate.

Again, the EPA wishes to thank you and your staff for your efforts in preparing the draft certifications. If you or your staff have any questions about this letter, please call Brian Nickel of my staff at 206-553-6251 or contact him by e-mail at nickel.brian@epa.gov.

Sincerely,

Michael J. Lidgard, Manager
NPDES Permits Unit